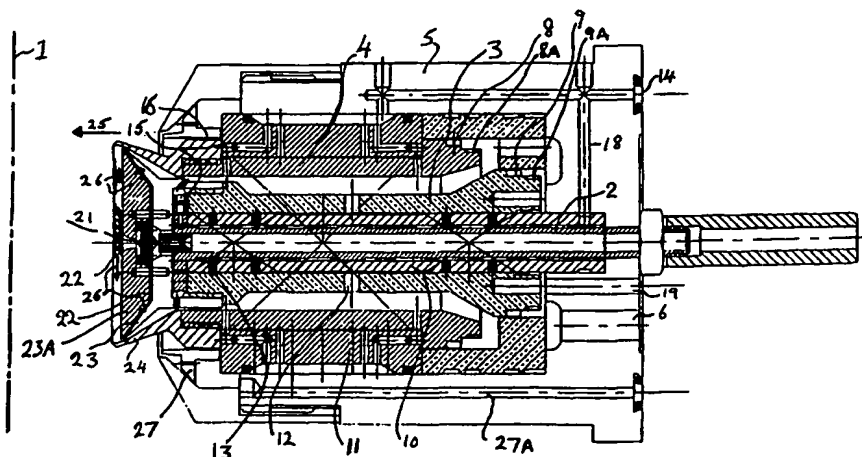




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>B05B 5/04</b>		<b>A1</b>	(11) International Publication Number: <b>WO 99/49983</b>
			(43) International Publication Date: 7 October 1999 (07.10.99)
(21) International Application Number: PCT/GB98/01675 (22) International Filing Date: 8 June 1998 (08.06.98) (30) Priority Data: 9806709.3 27 March 1998 (27.03.98) GB (71) Applicants (for all designated States except US): WESTWIND AIR BEARINGS LTD. [GB/GB]; Holton Road, Holton Heath, Poole, Dorset BH16 6LN (GB). R.D.T. ADVANCED PAINTING TECHNOLOGY LTD. [GB/GB]; Green Cottage, Green Lane, Holberrow Green, Worcestershire B96 6SH (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): STRATTON, John, David [GB/GB]; 6A New Road, Ashurst, Southampton, Hampshire ST4 2BS (GB). TAYLOR, Robert, Dennis [GB/GB]; Green Cottage, Green Lane, Holberrow Green, Worcestershire B96 6SH (GB). (74) Agents: TRIBE, Thomas, Geoffrey et al.; fJ Cleveland, 40-43 Chancery Lane, London WC2A 1JQ (GB).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BE, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>	

(54) Title: A ROTARY DEVICE FOR TRANSMISSION OF MATERIAL IN PARTICULATE FORM



## (57) Abstract

A device for transmitting a beam of material in particulate form for example for use as an atomised particle paint sprayer comprising an outer bell-shaped member (24) which is rotatable about a principal axis and arranged to project a conical curtain of small particles flowing generally towards a target, supply means for supply of material from a reservoir source and centrally outwards from said principal axis and towards a peripheral internal shaping region of said outer bell-shaped member to create said conical curtain of small particles there being an inner rotary bell-shaped member (23) which is provided coaxially with said outer bell-shaped member and is arranged to rotate at a different rate to that of said outer bell-shaped member so that at least a major part of the material emerging from said supply means is subject to differing rotary forces imparted by both the inner and outer rotary bell-shaped members (23, 24), and preferably the bell-shaped members being driven by an air supply conduit which is separate from an air supply conduit for air bearings (10, 11) supporting rotation of said bell-shaped members.